

LEGISLATIVE RESEARCH COMMISSION

**LIFE CYCLE COST ANALYSIS
COMMITTEE**

NORTH CAROLINA GENERAL ASSEMBLY



**REPORT TO THE
2012 SESSION
of the
2011 GENERAL ASSEMBLY
OF NORTH CAROLINA**

APRIL 19, 2012

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TRANSMITTAL LETTER

May 16, 2012

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TO THE MEMBERS OF THE 2012 REGULAR SESSION
OF THE 2011 GENERAL ASSEMBLY

The Legislative Research Commission herewith submits to you for your consideration its report and recommendations to the 2012 Regular Session of the 2011 General Assembly. The report was prepared by the Legislative Research Commission's Committee on Life Cycle Cost Analysis, pursuant to G.S. 120-30.70(1).

Respectfully submitted,



Senator Philip E. Berger
President Pro Tempore of the Senate



Representative Thomas R. Tillis
Speaker of the House of Representatives

Co-Chairs
Legislative Research Commission

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LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP

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2011 – 2012

President Pro Tempore of the Senate

Senator Philip E. Berger

Co-Chair

Senator Thomas M. Apodaca

Acting Co-Chair

Senator Peter S. Brunstetter

Senator Linda D. Garrou

Senator Martin L. Nesbitt, Jr.

Senator Richard Y. Stevens

Speaker of the House of Representatives

Representative Thomas R. Tillis

Co-Chair

Representative Timothy K. Moore

Acting Co-Chair

Representative John M. Blust

Representative Justin P. Burr

Representative Mike D. Hager

Representative Edith D. Warren

PREFACE

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The Legislative Research Commission, established by Article 6B of Chapter 120 of the General Statutes, is the general purpose study group in the Legislative Branch of State Government. The Commission is co-chaired by the President Pro Tempore of the Senate and the Speaker of the House of Representatives and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigation into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

The Legislative Research Commission authorized the study of Life Cycle Cost Analysis, under authority of G.S. 120-30.17(1). The Committee was chaired by Representative John Torbett. The full membership of the Committee is listed under [Committee Membership](#). A committee notebook containing the committee minutes and all information presented to the committee will be filed in the Legislative Library by the end of the **2011-2012** biennium.

COMMITTEE PROCEEDINGS

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The Legislative Research Commission's Committee on Life Cycle Cost Analysis met 4 times after the 2011 Regular Session. The Committee's Charge can be found [here](#). The following is a brief summary of the Committee's proceedings. Detailed minutes and information from each Committee meeting are available in the Legislative Library.

January 26, 2012

The first meeting of the Committee was held January 26, 2012 at 9:00 am in Room 421 of the Legislative Office Building. After hearing its charge and adopting a budget, the Committee heard a presentation on the North Carolina Department of Transportation construction process from Terry R. Gibson, PE, State Highway Administrator.

February 23, 2012

The second meeting of the Committee was held February 23, 2012 at 10:00 am in Room 421 of the Legislative Office Building. The Committee heard presentations on highway contracting methods from Jon Nance, P.E., NC DOT Chief Engineer; Berry Jenkins, P.E., Carolinas Associated General Contractors, NC Highway Division Director, Carolinas Associated General Contractors; Ricky Vick, P.E., Executive Vice President, S.T.Wooten Corporation; and Kathryn S. Westcott, Executive Director, American Council of Engineering Companies of North Carolina.

March 28, 2012

The third meeting of the Committee was held March 28, 2012 at 10:00 am in Room 421 of the Legislative Office Building. The Committee heard presentations on life cycle costs and pavement from Jerry Reece, Executive Director, North Carolina Concrete Pavement Association and Christie Barbee, Executive Director, Carolina Asphalt Pavement Association Presentation. Next the committee heard a presentation from Jon Nance, P.E., Chief Engineer, NC DOT, on recommendations from the Department for possible recommendations by the Committee in its report. Finally, the chairman reviewed of list of additional proposed recommendations, included in this report.

April 19, 2012

The Fourth meeting of the Committee was held April 19, 2012, in Room 421 of the Legislative Office Building. At the meeting, the Committee adopted this report

FINDINGS AND RECOMMENDATIONS

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With the limited time available to conduct its study this interim, the Committee finds that there are some issues that should be addressed immediately with proposed legislation. Other issues may not require legislation but may be addressed through the Department of Transportation. The Committee also finds that issues related to more efficient and effective methods for construction of transportation projects are broad, complex, and varied and recommends ongoing study.

Proposed Legislation

Interest Rate on Condemnation Judgments – Under G.S. 136-113, the State is currently required to pay 8% interest in condemnation cases. Interest is paid from the date of the taking to the date the judgment is signed. The 8% interest rate does not fluctuate. The Committee recommends that G.S. 136-113 be amended to provide for a variable interest rate in condemnation cases. (See APPENDIX D: LEGISLATIVE PROPOSALS)

Study Expediting State Water Quality Regulation for Transportation Projects – Under current law, the Sedimentation Control Commission of the Department of Environment and Natural Resources delegates jurisdiction to the Department of Transportation to administer an erosion and sedimentation control program, which has been successful at producing time and cost savings while not sacrificing the quality of the program. The Committee heard recommendations from interested parties that the Department of Environment and Natural Resources be given similar authority to delegate jurisdiction to the Department of Transportation to administer water quality programs. However, because of possible conflicts with federal law, the Committee recommends that the Department of Transportation and the Department of Environment and Natural Resources jointly study the feasibility of expediting water quality-related regulation in order to expedite transportation projects. (See APPENDIX D: LEGISLATIVE PROPOSALS)

Proposals for action by the Department of Transportation

Department of Transportation Efficiency Initiatives – The Committee recommends that the Department of Transportation continue to take measures to develop and utilize the most efficient and effective methods of planning and constructing transportation projects, including:

- Effective use and timing of contracting methods.
- Better coordination of utility work.
- Exploring methods to reduce right-of-way.

- Higher grade sheeting for signs and other innovations that reduce future costs to the State.
- Technology initiatives.
- Utilization of more road closures to speed construction time.
- Driver education to improve mobility.
- Full and complete examination of Life Cycle Cost determinations.
- Develop and utilize a process for private sector peer review of design and construction methods to ensure the State is using best practices.

Continued Study

The Committee recommends that the 2013 General Assembly create a new committee, or task an appropriate existing committee, to continue the Life Cycle Cost study of issues related to more effective and efficient construction of transportation projects in this State.

COMMITTEE MEMBERSHIP

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2011-2012

Speaker of the House of Representatives
Appointments:

Representative John Torbett, Chair

Representative Mitch Gillespie

Representative Mark Hilton

Representative Frank Iler

Representative Richard Killian

Representative P. Mills

Representative Tom Murry

COMMITTEE CHARGE

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From the Legislative Research Commission authorization letter of the Speaker of House, Thom Tillis, dated September 1, 2011:

The Committee "may study the implementation of revised policies on life cycle cost analysis including material cost indexing, open bidding for alternate pavement designs for all TIP projects that exceed \$500,000 in pavement costs, and the 30 year design periods and 45 year analysis periods based upon actual historic schedules and costs."

STATUTORY AUTHORITY

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NORTH CAROLINA GENERAL STATUTES ARTICLE 6B.

Legislative Research Commission.

§ 120-30.17. Powers and duties.

The Legislative Research Commission has the following powers and duties:

- (1) Pursuant to the direction of the General Assembly or either house thereof, or of the chairmen, to make or cause to be made such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner.
- (2) To report to the General Assembly the results of the studies made. The reports may be accompanied by the recommendations of the Commission and bills suggested to effectuate the recommendations.
- (3), (4) Repealed by Session Laws 1969, c. 1184, s. 8.
- (5), (6) Repealed by Session Laws 1981, c. 688, s. 2.
- (7) To obtain information and data from all State officers, agents, agencies and departments, while in discharge of its duty, pursuant to the provisions of G.S. 120-19 as if it were a committee of the General Assembly.
- (8) To call witnesses and compel testimony relevant to any matter properly before the Commission or any of its committees. The provisions of G.S. 120-19.1 through G.S. 120-19.4 shall apply to the proceedings of the Commission and its committees as if each were a joint committee of the General Assembly. In addition to the other signatures required for the issuance of a subpoena under this subsection, the subpoena shall also be signed by the members of the Commission or of its committee who vote for the issuance of the subpoena.
- (9) For studies authorized to be made by the Legislative Research Commission, to request another State agency, board, commission or committee to conduct the study if the Legislative Research Commission determines that the other body is a more appropriate vehicle with which to conduct the study. If the other body agrees, and no legislation specifically provides otherwise, that body shall conduct the study as if the original authorization had assigned the study to that body and shall report to the General Assembly at the same time other studies to be conducted by the Legislative Research Commission are to be reported. The other agency shall conduct the transferred study within the funds already assigned to it.

LEGISLATIVE PROPOSALS

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GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2011

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D

BILL DRAFT 2011-RW-17 [v.1] (04/09)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
4/9/2012 3:42:04 PM

Short Title: Interest Rate on DOT Condemnation Deposits.

(Public)

Sponsors:

Referred to:

A BILL TO BE ENTITLED

AN ACT TO AUTHORIZE A MARKET INTEREST RATE OF INTEREST ON
DEPARTMENT OF TRANSPORTATION CONDEMNATION JUDGMENTS.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 136-113 reads as rewritten:

"§ 136-113. Interest as a part of just compensation.

To said amount awarded as damages by the commissioners or a jury or judge, the judge shall, as a part of just compensation, add interest at the ~~legal rate as provided in G.S. 24-1~~ prime rate plus one percent (1%) on said amount from the date of taking to the date of judgment; but interest shall not be allowed from the date of deposit on so much thereof as shall have been paid into court as provided in this Article. The rate shall be set as of the date of the declaration of taking, and shall be reset on the anniversary date of the taking for each subsequent year of interest, until the date the award of damages is paid."

SECTION 2. This act becomes effective October 1, 2012.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2011

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D

BILL DRAFT 2011-SUZ-10 [v.1] (04/19)

(THIS IS A DRAFT AND IS NOT READY FOR INTRODUCTION)
4/19/2012 1:48:28 PM

Short Title: DOT/DENR Study Expedite Water Quality Reg. (Public)

Sponsors: Representative.

Referred to:

A BILL TO BE ENTITLED

AN ACT TO DIRECT THE DEPARTMENT OF TRANSPORTATION AND THE
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO
JOINTLY STUDY EXPEDITING WATER QUALITY REGULATION
MONITORING AND IMPLEMENTATION FOR TRANSPORTATION
PROJECTS.

The General Assembly of North Carolina enacts:

SECTION 1. The Department of Transportation and the Department of Environment and Natural Resources shall jointly study the feasibility of expediting State water quality-related regulation monitoring and implementation, in order to expedite construction of transportation projects in the State. The Department of Transportation and the Department of Environment and Natural Resources shall report the results of the study to the Joint Legislative Transportation Oversight Committee on or before December 1, 2012.

SECTION 2. This act is effective when it becomes law.